Flash image to Tinker Edge R thru recovery image

To support UMS mode for Tinker Edge R, it must flash image thru micro-SD card with recovery image. This method is applicable for upgrading from versions before 2021/8/1 to versions after 2021/8/1.
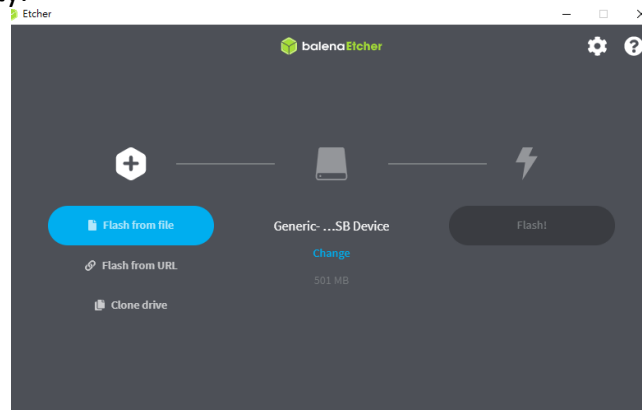
1. Preparation

A micro-SD card
A micro-SD card reader
A USB Type-C cable
Tinker Edge R
Power Adaptor, 12~19 VDC

Download tool either one of below list: (This document demonstrates by using Etcher.)
Etcher, https://www.balena.io/etcher/
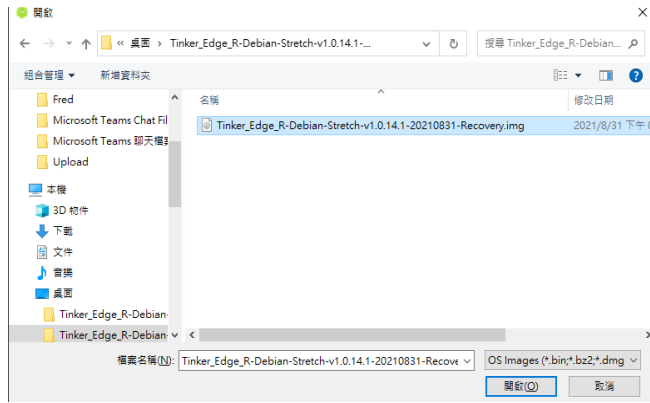Win32DiskImager, https://sourceforge.net/projects/win32diskimager/

Download the Tinker Edge R image from the Tinker Board website (Tinker Board (asus.com))
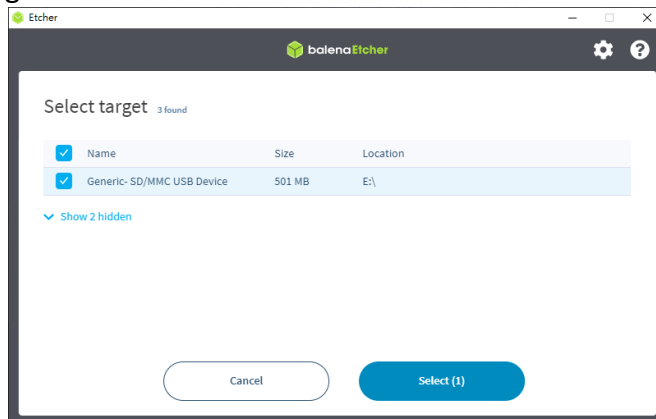
2. Flash recovery image to micro-SD card

2-1. Insert micro-SD card into the card reader.
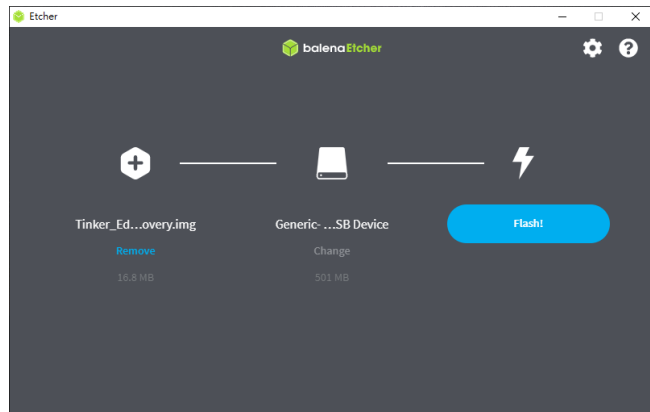2-2. Insert the card reader to the Laptop/PC.
2-3. Run Etcher utility.

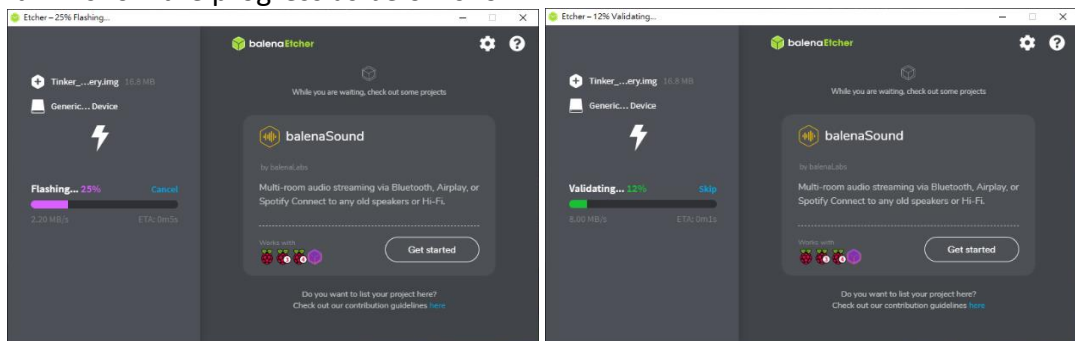2-4. Click "Flash from file", then browse file name "Tinker_Edge_R-Debian-Stretch-vX.X.XX.X-YYYYMMDD-Recovery.img".

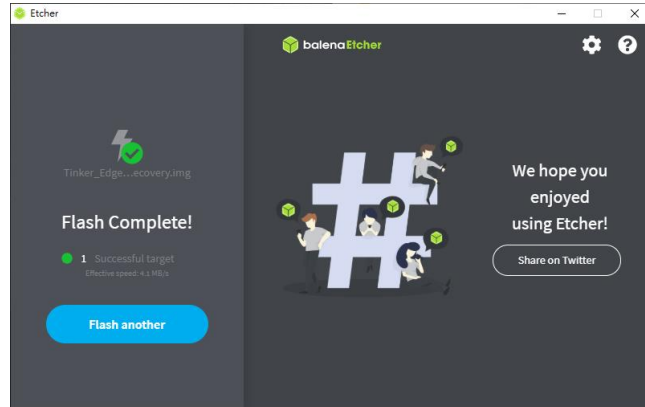2-5. Click "Select target" to choose the micro-SD card.

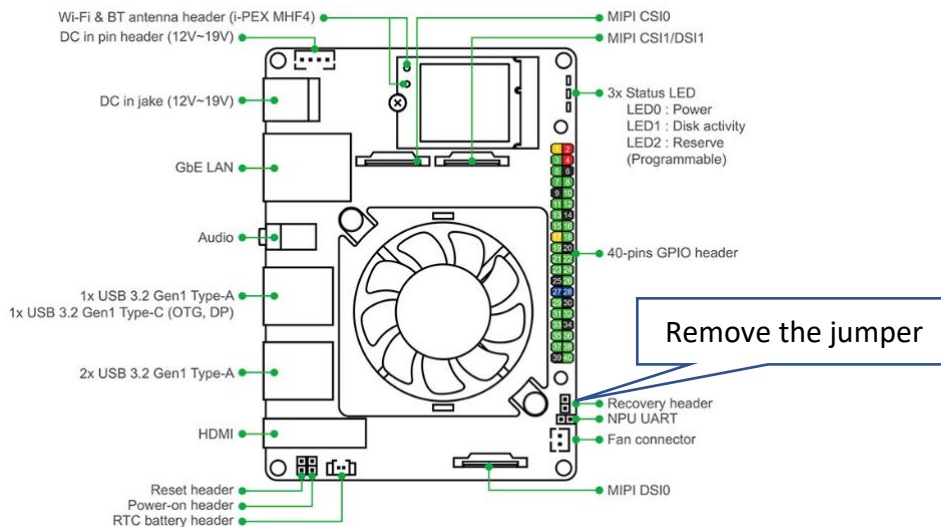2-6. Then clicking "Flashing!" beginning to flash recovery image to SD card.

2-7. It will show the progress as below shown:

2-8. Then finished.

3. Flash image to the eMMC of Tinker Edge R

3-1. Remove the jumper from the Recovery header.

3-2. Remove the micro-SD from the card reader and insert it into SD slot of Tinker Edge R.
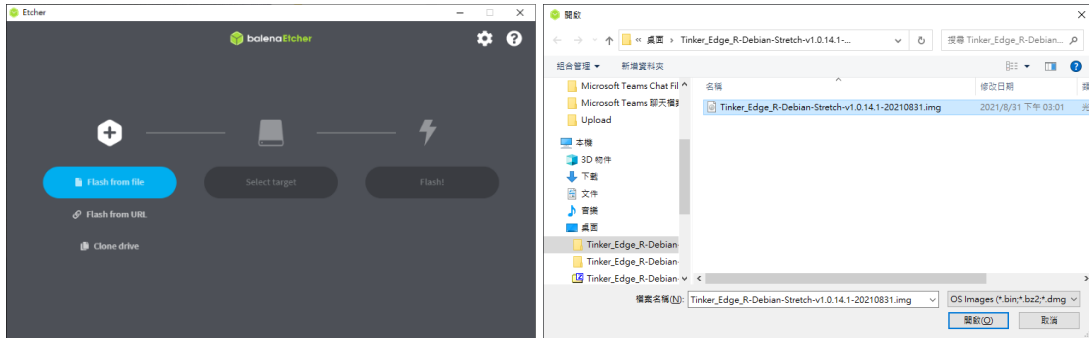
3-3. Connect USB Type-C cable between Tinker Edge R and Laptop/PC.

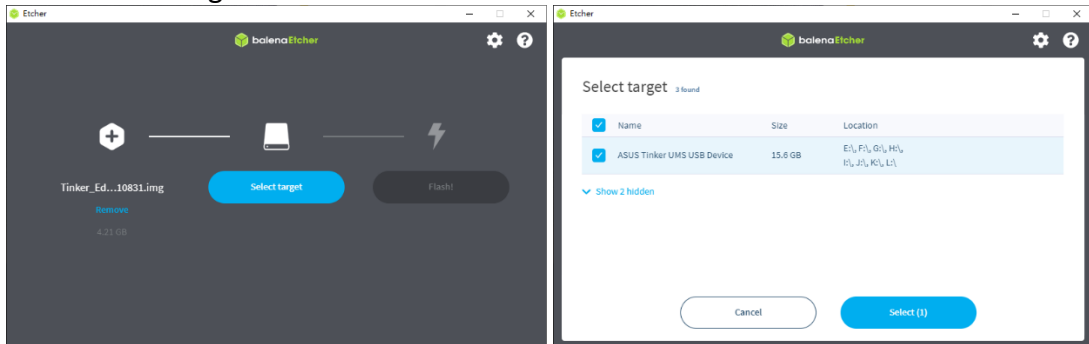3-4. Connect power adaptor to Tinker Edge R.

3-5. The Laptop/PC should detect several USB disks which come from Tinker Edge R after Tinker Edge R power on. Please DO NOT format any of the detected disks when popping up the format warning.

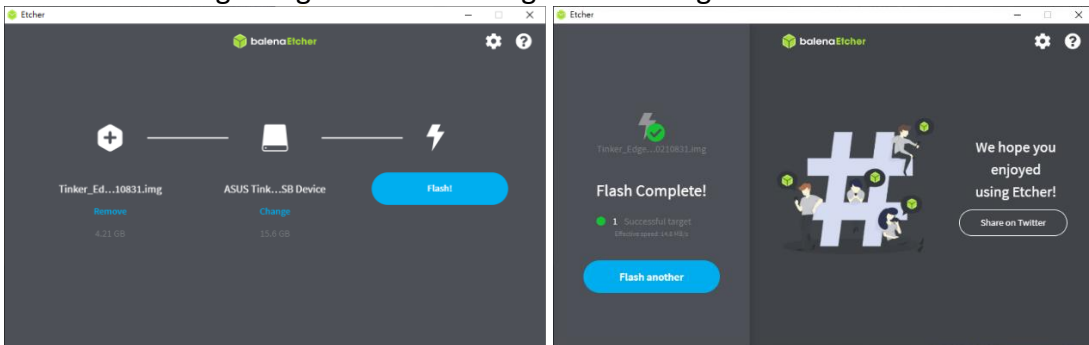3-6. Run Etcher utility. (The following steps are the same as above.)

3-7. Click "Flash from file" and browse the image file, such as "Tinker_Edge_R-Debian-Stretch-vX.X.XX.X-YYYYMMDD.img".

3-8. Click "Select target" and select "ASUS Tinker UMS USB Device".

3-9. Click "Flash!" beginning to flash the image and waiting for it finishes.

3-10.   You could remove the micro-SD card, USB Type-C cable and power adaptor from Tinker Edge R once flashed completely.

NOTE: This procedure needs to execute once on each Tinker Edge R. If the image version is kept in the version released after 2021/8/1. Afterwards, you just flash an image following steps 3-5 to 3-9 with a USB Type-C connection.